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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,540	01/22/2002	Hyun-Ho Kim	5649-926	5971

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EXAMINER

PHAM, HOAI V

ART UNIT PAPER NUMBER

2814

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/054,540

Applicant(s)

KIM ET AL.

Examiner

Hoai V Pham

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of figures 4-12, claims 1-7 and 10-12 in Paper No. 6 is acknowledged.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Park [U.S. Pat. 5,774,327].

Park (figures 6-10, cols. 4-6) discloses an integrated circuit ferroelectric memory device, comprising:

an integrated circuit transistor (23);

a ferroelectric capacitor on the integrated circuit transistor, the ferroelectric capacitor having a first electrode (32A) adjacent the transistor, a second electrode (34A) remote from the transistor and a ferroelectric film (33A) therebetween; and

a plate line (44A) directly on the ferroelectric capacitor.

With respect to claim 2, Park discloses that the plate line is directly on the second electrode of the ferroelectric capacitor (see fig. 10).

With respect to claim 3, Park discloses that the integrated circuit ferroelectric memory device is free of a plug between the plate line and the second electrode (see fig. 10).

With respect to claim 4, Park discloses that the integrated circuit ferroelectric memory device is free of an insulating layer between the plate line and the second electrode (see fig. 10).

With respect to claim 5, Park discloses that the second electrode has a width and wherein the plate line is directly on the second electrode across the width (see fig. 10).

With respect to claim 10, Park discloses that the first electrode comprises at least one of platinum and iridium dioxide (col. 5, lines 33-36).

With respect to claim 11, Park discloses that the ferroelectric film comprises at least one of PZT (col. 5, lines 36-37).

With respect to claim 12, Park discloses that the second electrode comprises at least one of iridium, ruthenium, platinum and iridium dioxide (col. 5, lines 37-39).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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5. Claims 1-3, 5-7 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Jung et al. [U.S. Pat. 6,388,281].

Jung (figures 2-3H, cols. 5-9) discloses an integrated circuit ferroelectric memory device, comprising:

an integrated circuit transistor (104);

a ferroelectric capacitor on the integrated circuit transistor, the ferroelectric capacitor having a first electrode (120,122) adjacent the transistor, a second electrode (126, 128) remote from the transistor and a ferroelectric film (124) therebetween; and a plate line (140) directly on the ferroelectric capacitor.

With respect to claim 2, Jung discloses that the plate line is directly on the second electrode of the ferroelectric capacitor (see fig. 2).

With respect to claim 3, Jung discloses that the integrated circuit ferroelectric memory device is free of a plug between the plate line and the second electrode (see fig. 2).

With respect to claim 5, Jung discloses that the second electrode has a width and wherein the plate line is directly on the second electrode across the width (see fig. 2).

With respect to claim 6, Jung discloses that a stripe line (136) adjacent the second electrode and remote from the first electrode (see fig. 3H, col. 8, lines 35-36).

With respect to claim 7, Jung discloses that the stripe line comprises aluminum (see col. 8, lines 44-54).

With respect to claim 10, Jung discloses that the first electrode comprises at least one of platinum and iridium dioxide (col. 7, lines 1-5).

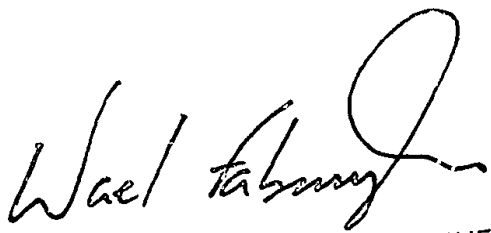
With respect to claim 11, Jung discloses that the ferroelectric film comprises at least one of PZT (col. 7, lines 18-22).

With respect to claim 12, Jung discloses that the second electrode comprises at least one of iridium, ruthenium, platinum and iridium dioxide (col. 7, lines 31-40).

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoai V Pham whose telephone number is 703-308-6173. The examiner can normally be reached on 6:30A.M. - 6:00P.M..
7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on 703-308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.
8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

HP  
Hoai Pham  
November 1, 2002

  
SUPERVISORY PRIMARY EXAMINER  
TECHNOLOGY CENTER 2800